

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application for:

**KRICK, DAVID T. ET AL**

Application No.: 10/802,378

Assignee: Intel Corporation

Filed: March 17, 2004

For: AIR GRATE

Examiner: Wilson, Gregory A.

Art Group: 3749

CERTIFICATE OF TRANSMISSION/MAILING

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Commissioner for Patents

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REPLY BRIEF TO EXAMINER'S ANSWER

The Appellant hereby submits this Reply Brief in response to the Examiner's Answer mailed July 20, 2006, in the above-captioned case. Appellant respectfully requests consideration of this Reply Brief by the Board of Patent Appeals and Interferences for allowance of the patent application.

**I. Status of the Claims**

Appellants appeal the rejection of claims 1-23, 25, and 26.

II. **Grounds for Rejection to be Reviewed on Appeal**

Whether claims 1-23, 25, and 26 are unpatentable under 35 U.S.C. § 103(a) either over the teachings of U.S. Patent Application No. 2004/16335 submitted by Hampel (hereinafter "*Hampel*") or over the teachings of U.S. Patent Application No. 6,612,084 issued to Rapisarda et al (hereinafter "*Rapisarda*").

### III. Argument

Rejection of claims 1-23, 25, and 26 under 35 U.S.C. § 103(a) was improper because neither *Hampel* nor *Rapisarda*, separately or in combination, teach or suggest all elements of the independent claims.

The Examiner's Answer alleges that *Hampel*'s Figure 2 and 6 disclose the claimed air flow limitation. See Examiner's Answer, p. 4, line 5. However, Appellant's fail to see how the cited Figures support the allegation. Figures 2 and 6 illustrate top and bottom views, respectively, of an outhouse base 12. See *Hampel*, ¶¶ [0021], [0024], [0045] (describing Figures 2 and 6). Nowhere does *Hampel*, whether in the cited Figures or elsewhere, disclose an air grate that allows "air to flow through a plurality of openings disposed in the uncovered portion of the spanned area to meet a semiconductor device manufacturing flow requirement," as set forth in independent claims 1, 9, 16, and 23. Although the Examiner's Answer alleges that *Hampel* could be designed "to meet [a] manufacturing requirement," Appellant cannot find any disclosure in *Hampel* directed to an air grate adapted to partially cover no more than 40% of a spanned area, allowing air to flow through a plurality of opening disposed in an uncovered portion of the spanned are to meet a semiconductor device manufacturing air flow requirement. See Examiner's Answer, p. 4, lines 5-7.

Furthermore, *Hampel* also fails to disclose the fall through object size and spill protection limitations, in conjunction with an at-times conflicting air flow requirement as discussed above. When viewing the claimed invention as a whole, the structural arrangement claimed stands for a novel arrangement that can simultaneously meet at least three requirements which at times are in tension. An example of the tension in the requirements is illustrated by the air flow requirement that necessitates for more/larger openings, the debris fall through limitation that generally calls for less/smaller openings, and the spill protection requirement that generally calls for lesser/smaller openings.

However, as clearly indicated in paragraph [0053] of *Hampel*:

Another advantage of the grate style floor 52 is that it improves ventilation through the building, which is particularly important when it is used as an outhouse, and as mentioned above, dirt, rocks and urine falls through the grate 52.

(emphasis added). Thus, *Hampel* teaches an air grate that meets certain ventilation, liquid, and debris fall through requirements; however, *Hampel*'s requirements are complementary, as opposed to conflicting, as both the desire to have increased ventilation and the desire to have increased liquid and debris fall through call for an increased amount of openings. Accordingly, *Hampel* does not teach or suggest structural arrangement for an air grate that can simultaneously meet at least three requirements that are conflicting at times.

Moreover, *Hampel* teaches away from the claimed invention. Specifically, *Hampel* teaches that holes in the grate are to encourage liquids to drop through the grate (see, e.g., *Hampel*, ¶ [0012]), while claim 1 includes the simultaneous meeting of a spill protection requirement (which inherently requires reduction of liquid passing through the grate).

The Examiner's Answer further alleges that *Rapisarda*'s Figure 1 discloses an air grate having the claimed air flow limitation. See Examiner's Answer, p. 4, lines 4-5. However, *Rapisarda* fails to disclose the claimed novel structural arrangement for an air grate that can simultaneously meet at least three requirements that are, at times, conflicting. When viewing the claimed invention as a whole, the structural arrangement claimed stands for a novel arrangement that can simultaneously meet at least three requirements which at times are in tension. An example of the tension in the requirements is illustrated by the air flow requirement that necessitates for more/larger openings, the debris fall through limitation that generally calls for less/smaller openings, and the spill protection requirement that generally calls for lesser/smaller openings. In contrast, as indicated in *Rapisarda*:

The mesh top is designed to provide the free flow of air therethrough and simultaneously to provide structural strength. In accordance with one embodiment of the invention, the mesh top is fabricated from stainless steel and has openings of about 1 inch by 4 inches. The mesh top can be about 1 1/2-2 inches in height and the apron is preferably about 4-5 inches in height.

See *Rapisarda*, 3:55-57 (emphasis added). Thus, *Rapisarda* merely teaches an air grate that simultaneously meets only two requirements that may be conflicting. Accordingly, *Rapisarda* does not teach or suggest an air grate that simultaneously meets at least three requirements that are conflicting at times.

Specifically, *Rapisarda* fails to disclose, teach, or suggest of an air grate capable of "allowing air to flow" suitable to "to meet a semiconductor device manufacturing air flow requirement" in tension with the requirement that the holes in the grate be "sufficiently small to meet a semiconductor device manufacturing fall though object size limitation", and be adapted to "meet a semiconductor device manufacturing spill protection requirement" as recited in claim 1 of the instant application.

The Examiner's Answer further alleges that *Hampel* and/or *Rapisarda* are capable of performing the limitations of claims 7, 14, and 22 directed to one or more materials of the air grate capable of having a post installation raised height of about 0.5 inches to meet the semiconductor device manufacturing spill protection requirement. See Examiner's Answer, p. 4, lines 15-18. However, Appellant's respectfully disagree. Neither *Hampel* nor *Rapisarda* teach or suggest the cited limitation, nor does either reference disclose how to modify, or the motivation to modify, their disclosed grates to arrive at the claimed air grate. Therefore, neither *Hampel* nor *Rapisarda* can be said to teach the claimed limitation.

**IV. Conclusion**

Appellant respectfully submits that all the appealed claims in this application are patentable and requests that the Board of Patent Appeals and Interferences overrule the Examiner and direct allowance of the rejected claims.

Please charge any shortages and credit any overages to Deposit Account No. 500393.

Respectfully submitted,  
SCHWABE, WILLIAMSON & WYATT, P.C.

Dated: 08/24/2006

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